

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



Enter Calendar Date

Mr. David Phillips
Site Director
SpecGx LLC - Mallinckrodt Pharmaceuticals
8801 Capital Boulevard
Raleigh, NC 27616

SUBJECT: Air Quality Permit No. 01479T59
Facility ID: 9200349
SpecGx LLC - Mallinckrodt Pharmaceuticals
Raleigh, Wake County, North Carolina
Fee Class: Title V
PSD Status: Minor

Dear Mr. Phillips:

In accordance with your completed Air Quality Permit Application for renewal of your Title V permit received December 27, 2019, we are forwarding herewith Air Quality Permit No. 01479T59 to SpecGx LLC - Mallinckrodt Pharmaceuticals, 8801 Capital Boulevard, Raleigh, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Wake County has triggered increment tracking under PSD for sulfur dioxide. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from (**Permit Issuance Date**) until (**Permit Expiration Date**), is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Crump at (919) 707-8470 or eric.crump@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Kelly Fortin, EPA Region 4 (Permit and review)
Raleigh Regional Office
Central Files
Connie Horne (Cover letter only)

ATTACHMENT to Permit No. 01479T59

Insignificant Activities per 15A NCAC 02Q .0503(8)

Source ID Nos.	Emission Source Description
IS-PAP-13.1	28,000 gallon sulfuric acid bulk storage tank
IS-PAP-13.2	28,000 gallon sulfuric acid bulk storage tank
IS-PAP-13.3	8,640 gallon sulfuric acid/hydrogen peroxide mix tank
I-APAP-16	Crystallizers (T-143 & T-145) and Dissolvers (T-142 and T-148)
I-Tank-CTK1	Sodium hydroxide tank (25% caustic solution), 7,500 gallon capacity
I-Tank-BTK1	Blowdown water storage tank for cloud chamber scrubber, 2,000 gallon capacity
I-ES-Fugitives-APAP-9 NSPS VV	Fugitive emission source APAP-9
I-GDF-1 GACT CCCCC	Gasoline storage tank, 500 gallon capacity
I-WW-1 GACT ZZZZ	100 kW standby diesel generator serving the waste water treatment plant (Support Facilities)
I-WP-1 GACT ZZZZ NSPS IIII	617-horsepower diesel-fired firewater pump

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the SpecGx LLC - Mallinckrodt Pharmaceuticals– Raleigh,
Air Permit No. 01479T58:

Page No.	Section	Description of Changes
Cover and throughout	---	Updated all dates and permit revision numbers
Insignificant Activities List	---	Added 617-horsepower diesel-fired firewater pump (ID No. I-WP-1)
6	2.1 A.2.f.ii	Changed 40 CFR 60.664(f) to 40 CFR 60.664(g)
	2.1 A.2.f.iii	Changed 40 CFR 60.664(d) to 40 CFR 60.664(e)
7	2.1 B.1	Added additional PM limit formulas from 02D .0515 to table
	2.1 B.1.a	Added additional PM limit formulas from 02D .0515
11	2.1 D.3	Changed “LFG” to “landfill gas”
	2.1 D.4	Corrected title of NSPS 40 CFR Part 60, Subpart Dc
13	2.1 D.5.b.iii	Added “dry basis” to description of carbon monoxide limit
	2.1 D.5.b.iv	Added “dry basis” to description of hydrocarbons limit
	2.1 D.5.b.v	Added “combined” to description of hydrogen chloride and chlorine limit
	2.1 D.5.b.vi	Corrected spelling of “lieu”
	2.1 D.5.c.vi	Added “combined” to description of hydrogen chloride and chlorine limit
	2.1 D.5.e	Changed 40 CFR 63. 1206(d) to 40 CFR 63. 1217(d)
15	2.1 D.5.l.ii	Spelled out the acronym “CMS” (continuous monitoring system)
22	2.1 D.5.qq	Added 40 CFR 63.10(c) to list of CFR citations at the end
25	2.2 A.1.c.iv	Inserted “(K-083 liquid waste) between the words “tar” and “fired”
28	2.2 A.2.b.i	Replaced “APAP” with “acetyl-para-aminophenol (APAP)”
	2.2 A.2.b.ii	Inserted “(aniline tar)” between the words “waste” and “in”
30	2.3 A.1.b, c	Changed the due date for submittal of RMP update and revision
31-40	3	Updated General Conditions to Version 5.3 dated August 21, 2018



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
01479T59	01479T58	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **SpecGx LLC - Mallinckrodt Pharmaceuticals**

Facility ID: **9200349**

Facility Site Location: **8801 Capital Boulevard**
City, County, State, Zip: **Raleigh, Wake County, North Carolina 27616**

Mailing Address: **8801 Capital Boulevard**
City, State, Zip: **Raleigh, North Carolina 27616**

Application Number: **9200349.20A**
Complete Application Date: **December 27, 2019**

Primary SIC Code: **2833, 2834, 2873, 2869, 2865**

Division of Air Quality, **Raleigh Regional Office**
Regional Office Address: **3800 Barrett Drive, Suite 101**
Raleigh, NC 27609

Permit issued this the XX day of XXXXX, 2020

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT

List of Acronyms

SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<i>p</i>-Aminophenol Production Process in Building 201 (PAP I)				
5	PAP-1	Flash arrestor tank (T-226) serving the process equipment listed in 'Confidential Building 201 Equipment List'	CD-PAP-1	Water packed bed column scrubber (SC-2007) to recover and recycle nitrobenzene to the process (voluntary use only)
8	PAP-2.1, PAP-2.2	Two (2) PAP vacuum dryers	CD-PAP-2	Fabric filter (DC-2001) (106 square feet of filter area)
8	PAP-11	Nitrobenzene rail car and/or truck unloading operations	N/A	N/A
8	PAP-12	Nitrobenzene storage tank (T-1), 124,000 gallon capacity	N/A	N/A
5	PAP-22 NSPS NNN	Process equipment specified in 'Confidential Building 201 Equipment List'	CD-COND-3 CD-PAPSCRUB	House vent condenser (HE-239) installed in series with a Packed bed scrubber (SCR-2022) (55 gallons per minute minimum liquid injection rate of a dilute sulfuric acid solution with an allowable pH range from 0 to 4)
8	PAP-25T	Aniline loading station for trucks	N/A	N/A
8	PAP-25R	Aniline loading station for railcars	N/A	N/A
<i>p</i>-Aminophenol Production Process in Building 205 (PAP II)				
5	PAP-6	Flash arrestor tank (T-311) serving the process equipment listed in the 'Confidential Building 205 Equipment List'	CD-PAP-6	Water packed bed column scrubber (SC-3006) to recover and recycle nitrobenzene to the process (voluntary use only)
8	PAP-7.1, PAP-7.2	Two (2) PAP vacuum dryers	CD-PAP-7	Fabric filter (DC-2004) (106 square feet of filter area)
8	PAP-8	Pneumatic conveyor and bulk bagging packaging station (BB-3045)	CD-PAP-8	Fabric filter (DC-3044) (106 square feet of filter area)
5	PAP-23 NSPS NNN	Process equipment listed in 'Confidential Building 205 Equipment List'	CD-COND-2 CD-PAPSCRUB	House vent condenser (HE-292), installed in series with a Packed bed scrubber (SCR-2022) (55 gallons per minute minimum liquid injection rate of a dilute sulfuric acid solution with an allowable pH range from 0 to 4)
Acetaminophen Production Process in Building 101 (APAP)				
6	APAP-1 NSPS NNN	Acetaminophen production process line in Building 101 with equipment specified in 'Confidential Building 101 APAP Equipment List'	CD-APAP-1	House system packed tower scrubber (S-163) (12-20 gal/min liquid injection rate of dilute potassium hydroxide or sodium hydroxide solution)

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
8	APAP-2	Eight (8) APAP packaging stations (#2P, #3G, #4G, #4P, BB-1449, BB-1404, BF-1470); and Three (3) APAP vacuum dryer drop hoppers (T-21, T-31, T-41)	CD-APAP-2	House dust collection system (DC-42) (212 square feet of filter area)
8	APAP-3	APAP House Vacuum System for production in Buildings 100A, 102, 103, and 104	CD-APAP-3	Fabric filter (DC-1486) (106 square feet of filter area)
8	APAP-4	Acetic anhydride bulk storage tank (T-8) (80,000 gallon capacity) and rail receiving operation	N/A	N/A
8	APAP-5A, APAP-5B	Two (2) acetic acid storage tanks (T-6, T-7) for APAP production, 135,000 gallon capacity each	N/A	N/A
8	APAP-7	Truck/rail load out vent on four 29,000 gallon acetic acid (HOAC) storage tanks (T-1462, T-1463, T-1465, T-1484)	N/A	N/A
7	APAP-8	Sizing equipment associated with #2 Dryer/Drop Hopper with pneumatic solids conveying system (M-22)	CD-APAP-8.1	Fabric filter (DC-21) (74 square feet of filter area)
7	APAP-10	Sizing equipment associated with #4 Dryer/Drop Hopper (M-41)	CD-APAP-10.1	Fabric filter (DC-41) (74 square feet of filter area)
7	APAP-11	Sizing equipment associated with #3 Dryer/Drop Hopper (M-31)	CD-APAP-11.1	Fabric filter (DC-31) (74 square feet of filter area)
7	APAP-12	Sizing equipment associated with the #2 Dryer/Drop Hopper (M-21)	CD-APAP-12.1	Fabric filter (DC-22) (74 square feet of filter area)
8	APAP-13.1	Acetic acid rinses in Purified Blend Tank (T-146)	N/A	N/A
8	APAP-13.2	Acetic acid rinses in Centrifuge Feed Tank (T-147)	N/A	N/A
8	APAP-13.3	Acetic acid rinses in Purified Blend Tank (T-159)	N/A	N/A
8	APAP-14.1	Acetic acid rinses in Process Mother Liquor (PML) Tank (T-161)	N/A	N/A
8	APAP-14.2	Acetic acid rinses in four centrifuges (C-1, C-2, C-3, C-9)	N/A	N/A
8	APAP-15	Acetic acid rinses in PML Tank (T-160)	N/A	N/A
7	APAP-17	Bulk bagging operations with pneumatic conveyor system (BB-1401)	CD-APAP-17	Fabric filter (DC-1407) (203 square feet of filter area)
7	APAP-18	Bulk bagging operations with pneumatic conveyor system (BB-1449)	CD-APAP-18	Fabric filter (DC-1450) (74 square feet of filter area)

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
7	APAP-21	PAP Charging pneumatic conveyor and product receivers	CD-APAP-21A CD-APAP-21B	Fabric filter (DC-1415) (159 square feet of filter area) Fabric filter (DC-1416) (159 square feet of filter area)
Boiler House & Other Support Facilities				
9	BH-2 MACT EEE	Natural gas/K-083 liquid waste-fired boiler equipped with a low-NOx burner (30.6 million Btu per hour maximum heat input)	CD-CCS	Cloud chamber scrubber system
9	BH-5 NSPS Dc GACT JJJJJ	Natural gas/No. 2 fuel oil/landfill gas-fired boiler equipped with a low-NOx burner (96.2 million Btu per hour maximum heat input)	N/A	N/A
9	BH-6 NSPS Dc	Natural gas/landfill gas-fired boiler (34 million Btu per hour maximum heat input)	N/A	N/A
9	BH-7 NSPS Dc MACT EEE	Natural gas/landfill gas/K-083 liquid waste-fired boiler equipped with low-NOx burners (66 million Btu per hour maximum heat input)	CD-CCS	Cloud chamber scrubber system
8	BH-900	K-083 liquid waste storage tank (T-900), 10,000 gallon capacity (exhausting to boilers ID Nos. BH-2, or BH-7, or no controls)	BH-2 BH-7 No controls	Natural gas/K-083 liquid waste-fired boiler equipped with a low-NOx burner (30.6 million Btu per hour maximum heat input) OR Natural gas/landfill gas/K-083 liquid waste-fired boiler equipped with low-NOx burners, 66 million Btu per hour maximum heat input) OR No Controls
8	WW-3	Raw wastewater holding tank	N/A	N/A
8	WW-4	Acetic acid wastewater treatment plant storage tank, 6,000 gallon capacity	N/A	N/A
Miscellaneous Sources				
5	ES-Fugitives NSPS VV	Fugitive emission sources: PAP-18, PAP-19, PAP-20, PAP-21, PAP-26, and APAP-20 (40 CFR Part 60, Subpart VV does not apply to PAP-21, PAP-26, or APAP-20)	N/A	N/A
8	PAP-10	Aniline bulk storage tank, 28,000 gallon capacity	N/A	N/A

2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. p-Aminophenol Production Process – Building 201 (PAP I)

- Flash arrestor tank (ID No. PAP-1)
- Process equipment specified in ‘Confidential Building 201 Equipment List’ (ID No. PAP-22) with associated condenser (ID No. CD-COND-3) and packed bed scrubber (ID No. CD-PAPSCRUB)

p-Aminophenol Production Process – Building 205 (PAP II)

- Flash arrestor tank (ID No. PAP-6)
- Process equipment specified in ‘Confidential Building 205 Equipment List’ (ID No. PAP-23) with associated condenser (ID No. CD-COND-2) and packed bed scrubber (ID No. CD-PAPSCRUB)

Acetaminophen Production Process

- Acetaminophen production process line in Building 101 (ID No. APAP-1) with associated packed tower scrubber (ID No. CD-APAP-1)

Additional Fugitive Emission Sources:

- PAP-18, 19, 20, 21, 26 and APAP-20 (ID No. ES-Fugitives)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
VOC	<u>Affected Sources: PAP-18, 19, & 20 (part of ES-Fugitives)</u> Recordkeeping requirements for affected heavy liquid service equipment.	15A NCAC 02D .0524 (40 CFR Part 60, Subpart VV)
VOC	<u>Affected Sources: Select Distillation Units in PAP-22, PAP-23 and APAP-1</u> Maintain a TRE index value greater than 8.0 for each of the affected sources.	15A NCAC 02D .0524 (40 CFR Part 60, Subpart NNN)
NO _x , SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2 A.1	15A NCAC 02Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2 A.2	15A NCAC 02D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2 A.3	15A NCAC 02Q .0700
Odors	<u>State-enforceable only</u> See Section 2.2 A.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS - NSPS for Equipment Leaks of VOC from SOCMF Facilities, 40 CFR Part 60, Subpart VV

- The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, “New Source Performance Standards” (NSPS), as promulgated in 40 CFR Part 60, Subpart VV, including Subpart A, “General Provisions,”

Recordkeeping [15A NCAC 02D .0524]

- For facilities that are complying with the limited requirements for heavy liquid service, the Permittee shall retain a

statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0524 if this record is not created and retained. [40 CFR 60.486(i)(2)]

Reporting [15A NCAC 02D .0508(f)]

- c. The Permittee shall submit a summary report of the recordkeeping requirements given in Section 2.1 A.1.b above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS – NSPS for VOC Emissions from SOCM Distillation Operations, 40 CFR Part 60, Subpart NNN

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, “New Source Performance Standards” (NSPS), as promulgated in 40 CFR Part 60, Subpart NNN, including Subpart A, “General Provisions”.

Emission Limitations [15A NCAC 02D .0524]

- b. The Permittee shall maintain a TRE index value greater than 8.0 for each of the affected sources (**ID Nos. PAP-22, PAP-23 and APAP-1**). [40 CFR 60.660(c)(4)]
- c. The Permittee shall maintain a TRE index value greater than 1.0 for each of the affected sources (**ID Nos. PAP-22, PAP-23 and APAP-1**) without use of VOC emission control devices. [40 CFR 60.662(c)]

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ and 40 CFR 60.664. If the results of this test do not meet the standard set in Section 2.1 A.2.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Process Changes [15A NCAC 02D .0524]

- e. The Permittee shall recalculate the TRE index value whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system:
 - i. Where the recalculated TRE index value is less than or equal to 1.0, notify the NC DAQ within 1 week of the recalculation and conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.
 - ii. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, conduct a performance test in accordance with 40 CFR 60.8 and 60.664 and comply with 40 CFR 60.663-.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if it fails to recalculate the TRE index value when a process change is made, or where any required performance tests are not conducted as required above. These process change requirements do not satisfy any permitting requirements that may be associated with the process change, as provided in 15A NCAC 02Q .0100, 15A NCAC 02Q .0300, and 15A NCAC 02Q .0500.

[40 CFR 60.664(g)]

Recordkeeping [15A NCAC 02D .0524]

- f. The Permittee shall keep up-to-date, readily accessible records of the following for demonstrating compliance with the limit in Section 2.1 A.2.c above:
 - i. Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;
 - ii. Any recalculation of the TRE index value performed pursuant to 40 CFR 60.664(g); and,
 - iii. The results of any performance test performed pursuant to the methods and procedures required by 40 CFR 60.664(e).

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0524 if it fails to meet these requirements.

[40 CFR 60.665(h)]

Reporting [15A NCAC 02D .0524]

- g. The Permittee shall submit a summary report of the monitoring and recordkeeping requirements given in Section 2.1 A.2.e and f above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All semiannual reports shall include the following information:
- Any recalculation of the TRE index value, as recorded pursuant to Section 2.1 A.2.e above; and
 - All instances of deviations from the requirements of this permit must be clearly identified.
- [40 CFR 60.665(l)]

B. Dryers, Sizing, Packaging, & Housekeeping Equipment (PAP & APAP Processes)

- Two (2) PAP vacuum dryers (ID Nos. PAP-2.1, PAP-2.2) with associated fabric filter (ID No. CD-PAP-2)
- Two (2) PAP vacuum dryers (ID Nos. PAP-7.1, PAP-7.2) with associated fabric filter (ID No. CD-PAP-7)
- Pneumatic conveyor and bulk bagging packaging station (ID No. PAP-8) with associated fabric filter (ID No. CD-PAP-8)
- Eight (8) APAP packaging stations and three (3) vacuum dryer drop hoppers (ID No. APAP-2) with associated dust collection system (ID No. CD-APAP-2)
- APAP House Vacuum System (ID No. APAP-3) with associated fabric filter (ID No. CD-APAP-3)
- Sizing equipment associated with #2 Dryer/Drop Hopper with pneumatic solids conveying system (ID Nos. APAP-8) with associated fabric filter (ID No. CD-APAP-8.1)
- Sizing equipment associated with #4 Dryer/Drop Hopper (ID No. APAP-10) with associated fabric filter (ID No. CD-APAP-10.1)
- Sizing equipment associated with #3 Dryer/Drop Hopper (ID No. APAP-11) with associated fabric filter (ID No. CD-APAP-11.1)
- Sizing equipment associated with #2 Dryer/Drop Hopper (ID No. APAP-12) with associated fabric filter (ID No. CD-APAP-12.1)
- C&M bulk bagging operations with pneumatic conveyor system (ID No. APAP-17) with associated fabric filter (ID No. CD-APAP-17)
- Bulk bagging operations with pneumatic conveyor system (ID No. APAP-18) with associated fabric filter (ID No. CD-APAP-18)
- PAP Charging pneumatic conveyor and product receivers (ID No. APAP-21) with associated fabric filters (ID Nos. CD-APAP-21A and CD-APAP-21B)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10 \times P^{0.67}$ (for process rates ≤ 30 tons per hour), or $E = 55.0 \times P^{0.11} - 40$ (for process rates ≥ 30 tons per hour) where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible Emissions	Visible emissions shall not exceed 20% opacity (6-minute average) more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87% opacity.	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the dryers, sizing, and packaging equipment shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where: E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required to demonstrate compliance with this particulate matter standard for pneumatic conveyor systems (**ID Nos. APAP-8, APAP-17, APAP-18, and APAP-21**) or sources equipped with broken bag detectors (**ID Nos. APAP-2, APAP-3, APAP-10, APAP-11, APAP-12, PAP-2.1, PAP-2.2, PAP-7.1, PAP-7.2, and PAP-8**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the affected dryers, sizing, and packaging equipment shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required to demonstrate compliance with this visible emission standard for pneumatic conveyor systems (**ID Nos. APAP-8, APAP-17, APAP-18, and APAP-21**) or sources equipped with broken bag detectors (**ID Nos. APAP-2, APAP-3, APAP-10, APAP-11, APAP-12, PAP-2.1, PAP-2.2, PAP-7.1, PAP-7.2, and PAP-8**).

C. Miscellaneous Storage, Loading, and Unloading Operations

- Aniline bulk storage tank (ID No. PAP-10)
- Nitrobenzene rail car unloading operations (ID No. PAP-11)
- Nitrobenzene storage tank (ID No. PAP-12)
- Aniline loading station for trucks (ID No. PAP-25T)
- Aniline loading station for railcars (ID No. PAP-25R)
- Acetic anhydride bulk storage tank and rail receiving operation (ID No. APAP-4)
- Two (2) acetic acid storage tanks for APAP production (ID No. APAP-5A and APAP-5B)
- Truck/rail load out vent on four acetic acid (HOAC) storage tanks (ID No. APAP-7)
- Six (6) acetic acid rinses (ID Nos. APAP-13.1, APAP-13.2, APAP-13.3, APAP-14.1, APAP-14.2, and APAP-15)
- K-083 liquid waste storage tank (T-900), 10,000 gallon capacity (exhausting to boilers ID Nos. BH- 2 or BH-7 or no controls) (ID No. BH-900)
- Raw wastewater holding tank (ID No. WW-3)
- Acetic acid wastewater treatment plant storage tank (ID No. WW-4)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
NOx, SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2 A.1	15A NCAC 02Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2 A.2	15A NCAC 02D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2 A.3	15A NCAC 02Q .0700
Odors	<u>State-enforceable only</u> See Section 2.2 A.4	15A NCAC 02D .1806

D. Boilers

Natural gas/K-083 liquid waste fired boiler equipped with a low-NOx burner (ID No. BH-2)

Natural gas/No. 2 fuel oil/landfill gas-fired boiler equipped with a low-NOx burner (ID No. BH-5)

Natural gas/landfill gas-fired boiler (ID No. BH-6)

Natural gas/landfill gas/K-083 liquid waste-fired boiler equipped with low-NOx burners (ID No. BH-7)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Particulate matter emissions shall not exceed limits provided in Section 2.1 D.1 below	15A NCAC 02D .0503
Sulfur Dioxide	Sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	Visible emissions shall not exceed 20% opacity (6-minute average) more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87% opacity.	15A NCAC 02D .0521
Sulfur Dioxide	<u>Affected Source: ID No. BH-5 (when burning fuel oil)</u> Sulfur content of fuel oil shall not exceed 0.5 percent by weight	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Dc)
Visible Emissions	Visible emissions shall not exceed 20 percent opacity (6-minute average), except for one six-minute period per hour of not more than 27 percent opacity.	
HAPs	<u>Affected Sources: ID No. BH-5</u> Work practice standards	15A NCAC 02D .1111 (40 CFR Part 63, Subpart JJJJJ)

Regulated Pollutant	Limits/Standards	Applicable Regulation
HAP	<p><u>Boiler: ID No. BH-2 only</u> Combustion gases emitted into the atmosphere shall have pollutant concentrations below the following limitations:</p> <ul style="list-style-type: none"> • Mercury: 4.2E-05 pounds per million Btu on an annual average • Cadmium and Lead, combined: 8.2E-05 pounds per million Btu on an annual average • Chromium: 1.3E-04 pounds per million Btu • Carbon Monoxide: 100 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average • Hydrocarbons: 10 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average, reported as propane • Hydrogen Chloride and Chlorine: 5.1E-02 pounds per million Btu • Particulate Matter: 80 milligrams per dry standard cubic meter, corrected to 7% oxygen <p><u>Boiler: ID No. BH-7 only</u> Combustion gases emitted into the atmosphere shall have pollutant concentrations below the following limitations:</p> <ul style="list-style-type: none"> • Dioxin/furans – The Permittee shall use the carbon monoxide and hydrocarbon emission standards in accordance with 40 CFR 63.1217(b)(1)(ii). • Mercury: 1.2E-06 pounds per million Btu on an annual averaging period. • Carbon Monoxide: 100 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average • Hydrocarbons: 10 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average, reported as propane • Hydrogen Chloride and Chlorine: 5.1E-02 pounds per million Btu <p>The Permittee can elect to comply with the standards for cadmium, lead, chromium and particulate matter under 40 CFR 266.105 and 266.106 OR the Permittee can elect to comply with the following emission limits under 40 CFR 63.1217(b):</p> <ul style="list-style-type: none"> • Cadmium and Lead, combined: 6.2E-06 pounds per million Btu on an annual averaging period • Chromium: 1.4E-05 pounds per million Btu • Particulate Matter: 20 milligrams per dry standard cubic meter, corrected to 7% oxygen. 	15A NCAC 02D .1111 (40 CFR Part 63, Subpart EEE)
NO _x , SO ₂	Facility-wide emissions limitations to maintain minor source status under the PSD permitting program. See Section 2.2 A.1	15A NCAC 02Q .0317 (PSD Avoidance)
TAP	<p><u>State-enforceable only</u> <u>Affected Source: ID Nos. BH-2 & BH-7only</u> See Section 2.2 A.2</p>	15A NCAC 02D .1100

Regulated Pollutant	Limits/Standards	Applicable Regulation
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels See Section 2.2 A.3	15A NCAC 02Q .0700
Odors	<u>State-enforceable only</u> See Section 2.2 A.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter emissions shall not exceed the emissions limitations listed in the following table:

Emission Source	Emission Limit (lbs/million Btu)
Boiler ID No. BH-2	0.33
Boiler ID No. BH-5	0.28
Boiler ID No. BH-7	0.25
Boiler ID No. BH-6	0.26

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard from the firing of natural gas, landfill gas, No. 2 fuel oil, or K-083 liquid waste in these sources.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the combustion units shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard from the firing of natural gas, landfill gas, No. 2 fuel oil, or K-083 liquid waste in these sources.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. BH-2, BH-5 (when firing natural gas), BH-6, and BH-7 (when firing natural gas or landfill gas)**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required to demonstrate compliance with this standard from the firing of natural gas, landfill gas, No. 2 fuel oil or K-083 liquid waste in these sources.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS – Standards of Performance for Small

Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards" (NSPS), as promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A, "General Provisions," for these sources (**ID Nos. BH-5, BH-6, and BH-7**).

Emission Limitations [15A NCAC 02D .0524]

- b. The maximum sulfur content of any fuel oil received and fired in this source (**ID No. BH-5**) shall not exceed 0.5 percent by weight. [40 CFR 60.42c(d)]
- c. Visible emissions when burning No. 2 fuel oil in this source (**ID No. BH-5**) shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c)]

Testing [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above a limit given in Section 2.1 D.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
- e. When No. 2 fuel oil is fired in this source (**ID No. BH-5**), the Permittee shall conduct a performance test using Method 9 to demonstrate the percent opacity does not exceed the limit given in Section 2.1 D.4.c above. The Method 9 observations shall be conducted according the following schedule:
 - i. Once every 12 months or within 45 days of combusting No. 2 fuel oil, whichever is later, when no visible emissions were observed during the previous Method 9 observation;
 - ii. Once every 6 months or within 45 days of combusting No. 2 fuel oil, whichever is later, when visible emissions were observed, but at no more than 5% opacity, during the previous Method 9 observation;
 - iii. Once every 3 months or within 45 days of combusting No. 2 fuel oil, whichever is later, when visible emissions were observed to be greater than 5% opacity but no more than 10% opacity during the previous Method 9 observation; and
 - iv. Once every 45 days when visible emissions were observed to be greater than 10 percent opacity during the previous Method 9 observation.

[40 CFR 60.47c)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the percent opacity exceeds the limits given in Section 2.1 D.4.c above.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The Permittee shall retain a copy of the fuel supplier certification for any No. 2 fuel oil fired in the affected source (**ID No. BH-5**). The fuel supplier certification shall include the following information:
 - i. The name of the oil supplier;
 - ii. The sulfur content of the oil (in % by weight); and,
 - iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1 D.4.b of this permit or if fuel supplier certifications are not retained as described above. [40 CFR 60.46c(d), 40 CFR 60.48c(f)]

- g. Each calendar month, the Permittee shall record the total quantity of each fuel fired in these sources (**ID Nos. BH-5, BH-6, and BH-7**) during the previous calendar month. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0524 if it fails to create and retain the required records. [40 CFR 60.48c(g)(2)]
- h. The Permittee shall record the following records for each performance test conducted using Method 9:
 - i. Dates and time intervals of all opacity observation periods;
 - ii. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
 - iii. Copies of all visible emission observer opacity field data sheets

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [40 CFR 60.48c(c)(1)]

Reporting [15A NCAC 02Q .0508(f), 40 CFR 60.48c(c), 40 CFR 60.48c(e)(11), 40 CFR 60.48c(j)]

- i. The Permittee shall submit a summary report of the reporting and recordkeeping requirements given in Section 2.1 D.4.f through h above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January

and June. The summary report shall include the following:

- ii. Calendar dates covered in the reporting period;
- iii. Fuel supplier certification(s) for each fuel oil, as provided in Section 2.1 D.4.f above;
- iv. A certified statement signed by the owner or operator that the records of fuel supplier certification(s) submitted represent all of the fuel fired at the affected boiler during the semiannual period;
- v. Excess emission reports for any excess visible emissions from the affected facility that occur during the reporting period; and,
- vi. All instances of deviations with 15A NCAC 02D .0524 as provided in this permit during the reporting period.

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY - National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 CFR Part 63 Subpart EEE

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" (MACT), as promulgated in 40 CFR Part 63, Subpart EEE, "National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors," including Subpart A, "General Provisions," for these sources (**ID Nos. BH-2 and BH-7**).

Emission Limitations [40 CFR 63.1206, 40 CFR 63.1217]

- b. The Permittee shall not discharge or cause combustion gases from this source (**ID No. BH-7**) to be emitted into the atmosphere that contain pollutant concentrations at or above the following limitations:
 - i. Dioxin/furans – The Permittee shall use the carbon monoxide and hydrocarbon emission standards in accordance with 40 CFR 63.1217(b)(1)(ii).
 - ii. Mercury: 1.2E-06 pounds per million Btu on an annual averaging period.
 - iii. Carbon Monoxide: 100 parts per million dry volume, dry basis and corrected to 7% oxygen, on a rolling hourly average.
 - iv. Hydrocarbons: 10 parts per million dry volume, dry basis, corrected to 7% oxygen, on a rolling hourly average, reported as propane.
 - v. Hydrogen Chloride and Chlorine, combined: 5.1E-02 pounds per million Btu.
[40 CFR 63.1217(b)]
 - vi. Pursuant to 40 CFR 63.1217(f) and 40 CFR 266.100(b)(3), the Permittee shall comply with the standards below for cadmium, lead, chromium and particulate matter only if the Permittee elects to comply with them in lieu of the corresponding standards under 40 CFR 266.105 and 266.106.
 - (A) Cadmium and Lead, combined: 6.2E-06 pounds per million Btu on an annual averaging period.
 - (B) Chromium: 1.4E-05 pounds per million Btu.
 - (C) Particulate Matter: 20 milligrams per dry standard cubic meter, corrected to 7% oxygen.
[40 CFR 63.1217(b), 40 CFR 63.1217(f)]
- c. The Permittee shall not discharge or cause combustion gases from this source (**ID No. BH-2**) to be emitted into the atmosphere that contain pollutant concentrations at or above the following limitations:
 - i. Mercury: 4.2E-05 pounds per million Btu on an annual averaging period.
 - ii. Cadmium and Lead, combined: 8.2E-05 pounds per million Btu on an annual averaging period.
 - iii. Chromium: 1.3E-04 pounds per million Btu.
 - iv. Carbon Monoxide: 100 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average.
 - v. Hydrocarbons: 10 parts per million dry volume, corrected to 7% oxygen, on a rolling hourly average, reported as propane.
 - vi. Hydrogen Chloride and Chlorine, combined: 5.1E-02 pounds per million Btu.
 - vii. Particulate Matter: 80 milligrams per dry standard cubic meter, corrected to 7% oxygen.
[40 CFR 63.1217(a)]
- d. The standards in Sections 2.1 D.5.b and c above apply at all times except during startup, shutdown, and malfunction events and at times when the affected boilers are not firing hazardous waste. [40 CFR 63.1206(b)(1)]
- e. The Permittee must perform intermediate calculations using at least three significant figures, but it may round the resultant emission levels to two significant figures to document compliance with the standards in Sections 2.1 D.5.b and c above. [40 CFR 63.1217(d)]

Operating Standards [40 CFR 63.1206, 40 CFR 63.1217]

- f. The Permittee demonstrated compliance with the destruction and removal efficiency (DRE) standard for this source (**ID No. BH-7**) during testing performed October and December 2013. No further compliance demonstration is required for this source (**ID No. BH-7**), provided the Permittee does not modify the design or operation of the boiler (**ID No. BH-7**) in a manner that could affect the ability to achieve the standard. [40 CFR 63.1217(c)(1), 40 CFR 63.1206(b)(7)(i)]
- g. The Permittee demonstrated compliance with the DRE standard for this source (**ID No. BH-2**) during a September 2004 performance test. No further compliance demonstration is required for this source (**ID No. BH-2**), provided the Permittee does not modify the design or operation of this source (**ID No. BH-2**) in a manner that could affect the ability to achieve the standard. [40 CFR 63.1217(c)(1), 40 CFR 63.1206(b)(7)(i)]
- h. The Permittee shall calculate the hazardous waste residence time and include the calculation in the performance test plan, the operating record, and in any Notification of Compliance submitted to the NC DAQ. [40 CFR 63.1206(b)(11)]
- i. The Permittee shall control combustion system leaks of HAP by keeping the combustion zone of the affected boilers sealed. [40 CFR 63.1206(c)(5)(i)(A)]

Feed Rate Limits & the Feed Stream Analysis Plan [40 CFR 63.1209]

- j. The Permittee shall comply with the following feed rate limits:
 - i. DRE and Dioxin and Furan:
 - (A) The maximum total hazardous waste feed rate to this source (**ID No. BH-2**) is 1,071 lb/hr on a rolling 1-hour average basis.
 - (B) The maximum total hazardous waste feed rate to this source (**ID No. BH-7**) is 1,544.6 lb/hr on a rolling 1-hour average basis.
[40 CFR 63.1209(j)(3), (k)(4)]
 - ii. Mercury:
 - (A) The maximum mercury feed rate is 1.39E-4 pounds per million Btu for this source (**ID No. BH-2**). The averaging period for the mercury feed rate shall not exceed one year.
 - (B) The maximum mercury feed rate is 3.73E-6 pounds per million Btu for this source (**ID No. BH-7**). The averaging period for the mercury feed rate shall not exceed one year.
[40 CFR 63.1209(l)(1)(ii)]
 - iii. Ash:
 - (A) The maximum ash feed rate limit is 7.03 lb/hr for this source (**ID No. BH-2**). The ash feed rate shall not exceed this limit on a rolling 12-hour average basis.
 - (B) The maximum ash feed rate limit for this source (**ID No. BH-7**) shall be the feed rate the Permittee uses to demonstrate compliance with the particulate limit in 40 CFR 266.105.
[40 CFR 63.1209(m)(3)]
 - iv. Semivolatile Metals (Cadmium and Lead):
 - (A) The maximum semivolatile metal feed rate is 4.87E-03 pounds per million Btu for this source (**ID No. BH-2**). The averaging period for the semivolatile metal feed rate shall not exceed one year.
 - (B) The maximum semivolatile metal feed rate limit for this source (**ID No. BH-7**) shall be the feed rate the Permittee uses to demonstrate compliance with the cadmium and lead limits in 40 CFR 266.106.
[40 CFR 63.1209(n)(2)(v)(A)]
 - v. Chromium:
 - (A) The maximum chromium feed rate limit is 1.83E-02 pounds per million Btu for this source (**ID No. BH-2**). The chromium feed rate shall not exceed this limit on a rolling 12-hour average basis.
 - (B) The maximum chromium feed rate limit for this source (**ID No. BH-7**) shall be the feed rate the Permittee uses to demonstrate compliance with the chromium limit in 40 CFR 266.106.
[40 CFR 63.1209(n)(2)(v)(B)]
 - vi. Hydrogen chloride and chlorine:
 - (A) The maximum total chlorine and chloride feed rate limit for this source (**ID No. BH-2**) is 7.03E-01 pounds per million Btu of chlorine (organic and inorganic). The total chlorine and chloride feed rate shall not exceed this limit on a rolling 12-hour average basis.
 - (B) The maximum total chlorine and chloride feed rate limit for this source (**ID No. BH-7**) is 8.13E-01 pounds per million Btu of chlorine (organic and inorganic). The total chlorine and chloride feed rate shall not exceed this limit on a rolling 12-hour average basis.
[40 CFR 63.1209(o)(1)(ii)]
 - vii. To remain in compliance with 15A NCAC 02D .1111 and 40 CFR Part 63 Subpart EEE for particulate matter, cadmium and lead, and chromium, the Permittee shall ensure the maximum feed rates of hazardous waste and ash to this source (**ID No. BH-7**) shall not exceed the rates the Permittee uses to demonstrate compliance with 40

CFR 266.105 and .106. These parameters shall be monitored and measured in accordance with the Feed Stream Analysis Plan specified in 2.1 D.5.k above.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D. 1111 if the feed rate limits in Section 2.1.D.5.j.i through vii above are exceeded.

- k. The Permittee shall develop and implement a feed stream analysis plan and record it in the operating record. The plan must specify at a minimum:
 - i. The parameters that will be analyzed for each feed stream to ensure compliance with the operating parameter limits;
 - ii. The analysis procedures (*e.g.*, sampling and analysis, using analytical information, or other methods);
 - iii. How the analysis will document compliance with applicable feed rate limits;
 - iv. Test methods used to obtain the analyses;
 - v. The sampling method used to obtain a representative sample of each feed stream to be analyzed using sampling methods described in 40 CFR 266, Appendix IX, or an equivalent method; and,
 - vi. The frequency at which the Permittee will review or repeat the initial analysis of the feed stream to ensure that the analysis is accurate and up-to-date.

[40 CFR 63.1209(c)(2)-(3)]

The feed stream analysis plan shall be retained on-site, and shall be submitted to the NC DAQ for review and approval, **if requested**. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if the feed stream analysis plan is not developed and implemented as required above.

- l. To demonstrate compliance with the applicable feed rate limits, the Permittee shall monitor and record feed rates as follows:
 - i. Determine and record the value of the parameter for each feed stream by sampling and analysis or other method;
 - ii. Determine and record the mass or volume flowrate of each feed stream by a continuous monitoring system (CMS). If the volume of the feed stream is monitored, determine and record the density of the feed stream by sampling and analysis (unless the Permittee reports the constituent concentration in units of weight per unit volume (*e.g.*, mg/l); and,
 - iii. Calculate and record the mass feed rate of the parameter per unit time.

[40 CFR 63.1209(c)(4)]

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if the feed rates in Section 2.1.D.5.j.i through vi are not monitored or if the feed rates exceed an applicable limit.

Operating Parameter Limits [40 CFR 63.1209]

- m. The Permittee shall comply with the following parameter limits:
 - i. **DRE and Dioxin and Furan:**
 - (A) The combustion chamber temperature for this source (**ID No. BH-2**) shall not fall below 1,829 °F on a rolling 1-hour average basis.
 - (B) The combustion chamber temperature for this source (**ID No. BH-7**) shall not fall below 1,261.7 °F on a rolling 1-hour average basis.
 - [40 CFR 63.1209(j)(1), (k)(2)]
 - ii. **All:**
 - (A) The stack ID fan speed for this source (**ID No. BH-2**) shall not exceed 802.2 RPM on a rolling 1-hour average basis.
 - (B) The stack ID fan speed for this source (**ID No. BH-7**) shall not exceed 1506.2 RPM on a rolling 1-hour average basis.
 - [40 CFR 63.1209(j)(2), (k)(3), (l)(2), (m)(2), (n)(5), (o)(2), (o)(3)(v)]
 - iii. **DRE:**
 - (A) The minimum atomizing steam pressure switch shall not fall below 80 psi for this source (**ID No. BH-2**), as provided by the manufacturer's specification, on a 1-minute average basis.
 - (B) The minimum atomizing steam pressure switches shall not fall below 45 psi for this source (**ID No. BH-7**), as provided by the manufacturer's specification, on a 1-minute average basis.
 - [40 CFR 63.1209(j)(4)]
 - iv. **Mercury, Hydrogen Chloride, and Chlorine:** The feed pressure of the scrubber water to the preconditioning chamber shall not fall below 10.0 psig on a rolling 1-hour average basis. [40 CFR 63.1209(m)(1)(iv)]
 - v. **Mercury, Hydrogen Chloride, and Chlorine:**
 - (A) For this source (**ID No. BH-2**) the pH of the scrubber water exiting the preconditioning chamber shall not fall below 6.35 on a rolling 1-hour average basis;
 - (B) For this source (**ID No. BH-2**) the pH of the scrubber water exiting the Cloud Generating Vessel sump shall

- not fall below 6.33 on a rolling 1-hour average basis;
- (C) For this source (**ID No. BH-7**) the pH of the scrubber water exiting the preconditioning chamber shall not fall below 6.81 on a rolling 1-hour average basis; and,
- (D) For this source (**ID No. BH-7**) the pH of the scrubber water exiting the Cloud Generating Vessel sump shall not fall below 6.40 on a rolling 1-hour average basis.
- [40 CFR 63.1209(l)(1)(ii)(D)(3) and 40 CFR 63.1209(o)(3)(iv)]*
- vi. Mercury, Hydrogen Chloride, and Chlorine:
- (A) For this source (**ID No. BH-2**) the flow rate of the scrubber water to the preconditioning chamber shall not fall below 956.0 gallons per minute (gpm) on a rolling 1-hour average basis;
- (B) For this source (**ID No. BH-2**) the flow rate of the scrubber water to the No. 1 Cloud Generating Vessel shall not fall below 271.3 gpm on a rolling 1-hour average basis;
- (C) For this source (**ID No. BH-2**) the flow rate of the scrubber water to the No. 2 Cloud Generating Vessel shall not fall below 246.6 gpm on a rolling 1-hour average basis;
- (D) For this source (**ID No. BH-7**) the flow rate of the scrubber water to the preconditioning chamber shall not fall below 999.4 gpm on a rolling 1-hour average basis;
- (E) For this source (**ID No. BH-7**) the flow rate of the scrubber water to the No. 1 Cloud Generating Vessel shall not fall below 282.9 gpm on a rolling 1-hour average basis; and
- (F) For this source (**ID No. BH-7**) the flow rate of the scrubber water to the No. 2 Cloud Generating Vessel shall not fall below 255.5 gpm on a rolling 1-hour average basis.
- [40 CFR 63.1209(l)(2), (o)(3)(v)]*
- vii. Particulate Matter and Semi/Low-Volatile Metals:
- (A) For this source (**ID No. BH-2**) the blowdown rates, measured by the flow meter located immediately downstream of the preconditioning chamber sump, shall not fall below 19.19 gpm on a rolling 1-hour average basis.
- (B) For this source (**ID No. BH-7**) the blow down rates, measured by the flow meter located immediately downstream of the preconditioning chamber sump, shall not fall below 25.79 gpm on a rolling 1-hour average basis.
- [40 CFR 63.1209(m)(1)(i)(B)(1), 40 CFR 63.1209 (n)(3)]*
- viii. Particulate Matter and Semi/Low-Volatile Metals:
- (A) No. 1 Cloud Generating Vessel:
- (1) For this source (**ID No. BH-2**) the voltage on charging head #1A shall not fall below 11.006 kV on a rolling 1-hour average basis; and,
 - (2) For this source (**ID No. BH-2**) the voltage on charging head #1B shall not fall below 10.988 kV on a rolling 1-hour average basis.
 - (3) For this source (**ID No. BH-7**) the voltage on charging head #1A shall not fall below 11.054 kV on an hourly rolling average basis; and,
 - (4) For this source (**ID No. BH-7**) the voltage on charging head #1B shall not fall below 10.748 kV on an hourly rolling average basis.
- (B) No. 2 Cloud Generating Vessel:
- (1) For this source (**ID No. BH-2**) the voltage on charging head #2A shall not fall below 10.967 kV on a rolling 1-hour average basis;
 - (2) For this source (**ID No. BH-2**) the voltage on charging head #2B shall not fall below 11.004 kV on a rolling 1-hour average basis;
 - (3) For this source (**ID No. BH-7**) the voltage on charging head #2A shall not fall below 11.014 kV on an hourly rolling average basis; and,
 - (4) For this source (**ID No. BH-7**) the voltage on charging head #2B shall not fall below 11.506 kV on an hourly rolling average basis.
- [40 CFR 63.1209(m)(1)(iv), (n)(3)]*
- ix. Particulate Matter and Semi/Low-Volatile Metals:
- (A) Preconditioning Chamber: The minimum scrubber water liquid level in the preconditioning chamber shall not fall below approximately 32 inches, as provided by the manufacturer's specification, on an instantaneous (one-minute average) basis.
- (B) No. 2 Cloud Generating Vessel: The minimum scrubber water liquid level in the No. 2 Cloud Generating Vessel sump shall not fall below approximately 32 inches, as provided by the manufacturer's specification, on an instantaneous (one-minute average) basis.
- [40 CFR §63.1209(m)(1)(i)(B)(1)(ii), (n)(3)]*
- x. Except during performance tests and/or pre-testing, as provided for in 40 CFR 63.1207(h), the Permittee shall be deemed in noncompliance with 02D .1111 if not operating within the limits as specified in Section 2.1 D.5.m.i

through ix above.

Testing [15A NCAC 02D .2600, 40 CFR 63.1207]

- n. If any further performance testing is required, the testing shall be performed in accordance with 40 CFR 63.1206(b)(12) and General Condition JJ. If the results of this test are above the emission limits as specified in Section 2.1 D.5.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.
- o. Anytime the Permittee is required to conduct DRE testing for this source (**ID No. BH-2**) pursuant to 40 CFR 63.1206(b)(7), it shall also test hydrocarbon emissions. On a rolling hourly average basis, hydrocarbon emissions shall be less than 10 parts per million dry volume, corrected to 7% oxygen, reported as propane. If the Permittee fails to conduct any such required hydrocarbon testing, or if the test results exceed the limit listed in Section 2.1 D.5.c above, it shall be deemed in non-compliance with 15A NCAC 02D .1111. [40 CFR 63.1217(a)(5)(i)]
- p. Anytime the Permittee is required to conduct DRE testing for this source (**ID No. BH-7**) pursuant to 40 CFR 63.1206(b)(7), it shall also test hydrocarbon emissions. On a rolling hourly average basis, hydrocarbon emissions shall be less than 10 parts per million dry volume, corrected to 7% oxygen, reported as propane. If the Permittee fails to conduct any such required hydrocarbon testing, or if the test results exceed the limit listed in Section 2.1 D.5.b above, it shall be deemed in non-compliance with 15A NCAC 02D .1111. [40 CFR 63.1217(b)(5)(i)]
- q. The Permittee shall conduct comprehensive performance testing at least once every 61 months, or as approved by NC DAQ – SSCB as provided in 40 CFR 63.1207(e)(3) or 40 CFR 63.1207(i). The next comprehensive performance test is required within 61 months of the date of commencing the previous comprehensive performance test.
 - i. Notification must be submitted to NC DAQ – SSCB at least one year prior to the proposed test is scheduled to begin, as provided in 40 CFR 63.1207(e)(1)(i). The test plan shall include the required information listed in 40 CFR 63.1207(f).
 - ii. The Permittee must make the site-specific test plan and CMS performance evaluation test plan available to the public for review no later than 60 calendar days before initiation of the test, as provided in 40 CFR 63.1207(e)(2).
 - iii. Operating conditions during the test must be consistent with 40 CFR 63.1207(g)(1).
 - iv. The Permittee shall submit a Notification of Compliance to NC DAQ – SSCB following completion of a comprehensive performance test in accordance with 40 CFR 63.1207(j)(1).
 - v. The performance test shall be complete within 60 days of commencement, unless the NC DAQ – SSCB determines that time extension is warranted based on documentation in writing of factors beyond the Permittee's control that prevents the Permittee from meeting the 60-day deadline.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. [40 CFR 63.1207(d)(1), (3)]

Automatic Waste Feed Cutoff Requirements [40 CFR 63.1206]

- r. The affected boilers must operate with a functioning automatic waste feed cutoff (AWFCO) system that immediately and automatically cuts off the hazardous waste feed in the following situations:
 - i. When any operating parameter limit is exceeded;
 - ii. When any emission limit monitored by a CEMS is exceeded;
 - iii. When the span value of any CMS detector, except a CEMS, is met or exceeded;
 - iv. Upon malfunction of a CMS monitoring an operating parameter limit or CEMS monitoring an emission limit; or,
 - v. When any component of the AWFCO system fails.

If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of a parameter listed above, the Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111. However, if equipment or other failures prevent immediate and automatic cutoff of the hazardous waste feed, the Permittee must cease feeding hazardous waste as quickly as possible. [40 CFR 63.1206(c)(3)(i), (iv)]
- s. During an AWFCO, the Permittee must continue to:
 - i. Duct combustion gases to the cloud chamber scrubber system (**ID No. CD-CCS**) while hazardous waste remains in the combustion chamber.
 - ii. Monitor emission limits and operating parameter limits during the AWFCO. The Permittee may not restart the hazardous waste feed until the monitored values are within the allowable limits.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. [40 CFR 63.1206(c)(3)(ii)-(iii)]
- t. Corrective Measures. If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber, the Permittee must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the operating record. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. [40 CFR 63.1206(c)(3)(v)]
- u. Weekly Testing. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless

the Permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. The Permittee must document and record in the operating record AWFCO operability test procedures and results. At a minimum the Permittee must conduct operability testing at least monthly. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. *[40 CFR 63.1206(c)(3)(vii)]*

Reporting [40 CFR 63.1206]

- v. The Permittee shall report the following:
 - i. For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber during a 60-day block period, the Permittee must submit a written report to the NC DAQ Regional Supervisor within 5 calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. *[40 CFR 63.1206(c)(3)(vi)(A)]*
 - ii. On a case-by-case basis, DAQ may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period. *[40 CFR 63.1206(c)(3)(vi)(B)]*

Operator Training & Certification [40 CFR 63.1206]

- w. The Permittee shall ensure that the affected boilers are operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of HAP, as provided in this section of the permit. A certified control room operator must be on duty at the site at all times the boilers are in operation. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met. *[40 CFR 63.1206(c)(6)(ii)]*
- x. The Permittee shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of HAP from the affected boilers. Such persons include, but are not limited to, chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feed streams, persons that manage and charge feed streams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified below:
 - i. Control room operators must be trained and certified as provided in 40 CFR 63.1206(c)(6)(iv); and,
 - ii. Where a site-specific, source-developed and implemented program is used, control room operators must complete an annual review or refresher course as required in 40 CFR 63.1206(c)(vi).*[40 CFR 63.1206(c)(6)(i), (iv)-(vi)]*
- y. The Permittee must record the operating training and certification program in the operating record. *[40 CFR 63.1206(c)(6)(vii)]*
- z. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 D.5.w through y above are not met.

Operation & Maintenance Plan [40 CFR 63.1206]

- aa. The Permittee must prepare and at all times operate according to an operation and maintenance plan that meets the following:
 - i. The plan describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the affected boilers, including the cloud chamber scrubber system, that could affect emissions of regulated HAP; and,
 - ii. how the Permittee will operate and maintain the affected boilers in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test.
 - iii. The Permittee shall record the operation and maintenance plan in the operating record.*[40 CFR 63.1206(c)(7)(i),(ii),(iv)]*

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1111 if these requirements are not met.

Monitoring [15A NCAC 02D .1206]

- bb. **Heating Value.** The Permittee must determine the as-fired heating value of hazardous waste in accordance with the feed stream analysis plan specified in Section 2.1 D.5.k above. The Permittee has already determined that the as-fired heating value of the currently fired hazardous waste is 10,000 Btu/lb or greater, as reflected in the standards listed above. If the as-fired heating value varies above and below 10,000 Btu/lb, the Permittee shall comply with the standards as provided in 40 CFR 63.1206(b)(16)(iv). Further, the Permittee shall file a permit application with the NC DAQ to revise the permit to reflect the standard applicable to a variable as-fired heating value, in accordance with the procedures in 15A NCAC 02Q .0300 and/or 15A NCAC 02Q .0500, as applicable. [40 CFR 63.1206(b)(16)(iv)]
- cc. **Carbon Monoxide.** The Permittee shall install, calibrate, maintain, and continuously operate a carbon monoxide (CO) CEMS and an oxygen CEMS to continuously correct the CO level to 7% O₂ in accordance with the quality assurance procedures in the Appendix to 40 CFR Part 63, Subpart EEE and Performance Specification 4B.
 - i. Except as provided by 40 CFR 63.1209(a)(3)(ii), if a CO CEMS detects a response that results in a one-minute average at or above the 500 ppmv span level required by Performance Specification 4B, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level.
 - ii. Rolling averages from the CEMS data shall be calculated in accordance with 40 CFR 63.1209(a)(6). [40 CFR 63.1209(a)(1)(i), 1209(a) (2), 1209(a) (3)(i), and 1209(a) (3)(ii)]
- dd. The Permittee must install and operate continuous monitoring systems to monitor each of the operating parameter limits listed in Section 2.1 D.5.m above in conformance with 40 CFR 63.8(c)(3). At a minimum:
 - i. Comply with the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system;
 - ii. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year;
 - iii. Each CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds, and compute and record the average values at least every 60 seconds;
 - iv. The span of the CMS detector must not be exceeded, and the Permittee must interlock the span limits into the automatic waste feed cutoff system;
 - v. Calculation of rolling averages:
 - (A) During Intermittent Operations. The Permittee shall ignore periods of time when one-minute values from the CMS are not available for calculating rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling averages.
 - (B) The Permittee is not subject to the CMS requirements of this condition during periods when hazardous waste is not in the combustion chamber. However, the Permittee must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff automatically, and the Permittee may not resume feeding hazardous waste if an operating parameter exceeds its limit.

[40 CFR 63.1209(b)]

Changes in Design, Operation, or Maintenance [40 CFR 63.1206]

- ee. The Permittee shall comply with the requirements provided in 40 CFR 63.1206(b)(5) if it makes any changes in the design, operation, or maintenance of the hazardous waste combustors. In addition, the Permittee must comply with all permitting requirements pursuant to 15A NCAC 02Q .0300 and/or 15A NCAC 02Q .0500, as applicable, prior to making such change.

Emergency Safety Vent (ESV) [40 CFR 63.1206]

- ff. The Permittee must develop an ESV operating plan, comply with the operating plan, and keep the plan in the operating record. The ESV operating plan must provide detailed procedures for rapidly stopping the waste feed, shutting down the combustor, and maintaining temperature and negative pressure in the combustion chamber during the hazardous waste residence time, if feasible. The plan must include calculations and information and data documenting the effectiveness of the plan's procedures for ensuring that combustion chamber temperature and negative pressure are maintained as is reasonably feasible. [40 CFR 63.1206(c)(4)(ii)]
- gg. If an ESV opens when hazardous waste remains in the combustion chamber of either affected boiler:
 - i. Document in the operating record whether it remained in compliance with the emission standards considering emissions during the ESV opening event. [40 CFR 63.1206(c)(4)(i)]
 - ii. After any ESV opening that results in a failure to meet the emission standards, investigate the cause of the ESV opening, take appropriate corrective measures to minimize such future ESV openings, and record the findings and corrective measures in the operating record. [40 CFR 63.1206(c)(4)(iii)]

- iii. Submit to the NC DAQ a written report within 5 days of an ESV opening that results in failure to meet the emission standards documenting the result of the investigation and corrective measures taken. [40 CFR 63.1206(c)(4)(iv)]

Startups, Shutdowns, and Malfunctions [40 CFR 63.1206]

- hh. The Permittee must develop and maintain a written startup, shutdown, and malfunction plan (SSMP) as provided in 40 CFR 63.6(e)(3). The plan must:
 - i. Include a description of potential causes of malfunctions, including releases from ESVs, that may result in significant releases of HAPs, and actions being taken to minimize the frequency and severity of those malfunctions;
 - ii. Describe in detail procedures for operating and maintaining the affected boilers during periods of startup, shutdown, and malfunction;
 - iii. Describe in detail a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment; and,
 - iv. Identified a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown.

The SSMP does not need to address any scenario that would not cause the source to exceed an applicable emission limitation. [40 CFR 63.1206(c)(2)(i), (iii)]
- ii. Maintain a current SSMP on-site and make the plan available upon request by NC DAQ for inspection and copying.
 - i. If the SSMP is subsequently revised, maintain each previous (i.e., superseded) version of the SSMP on-site, and make each such previous version available for inspection and copying for a period of 5 years after revision of the plan.
 - ii. If at any time after adoption of a SSMP the affected boilers cease operation or are otherwise no longer subject to the provisions of 40 CFR Part 63, Subpart EEE, retain a copy of the most recent plan for 5 years and make the plan available upon request for inspection and copying. [40 CFR 63.1206(c)(2)(i)]
- jj. During malfunctions, the automatic waste feed cutoff requirements continue to apply, except for the corrective measures and reporting requirements in Sections 2.1 D.5.t and v, respectively. If an emission standard monitored by a CEMS or operating parameter limit is exceeded, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed. However, if the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, the Permittee shall cease feeding hazardous waste as quickly as possible. [40 CFR 63.1206(c)(2)(v)(A)(1)]
- kk. **Excessive exceedances during malfunctions.** For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the Permittee must:
 - i. Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and
 - ii. Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the SSMP, in the semiannual excess emissions report. [40 CFR 63.1206(c)(2)(v)(A)(3)]

Recordkeeping [15A NCAC 02D .0508(f), 40 CFR 63.6, 40 CFR 63.1206, 40 CFR 63.1211]

- ll. The Permittee shall create and retain the records listed below for a period of at least 5 years with the most recent 2 years of records maintained on-site. The records shall be maintained in a logbook (written or electronic format). All records must be made available to an authorized representative upon request.
 - i. The calculated hazardous waste residence time;
 - ii. Documentation of investigations and evaluations of excessive exceedances during malfunctions;
 - iii. The startup, shutdown, and malfunction plan;
 - iv. Description of corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit;
 - v. Documentation and results of the weekly automatic waste feed cutoff operability testing;
 - vi. Records of the operator training and certification;
 - vii. The operation and maintenance plan;
 - viii. The feed stream analysis plan;
 - ix. The results of all comprehensive performance testing;
 - x. All CO CEMS monitoring data, as required in Section 2.1 D.5.cc of this permit;
 - xi. All CMS parameter monitoring data, as required in Section 2.1 D.5.dd of this permit;

- xii. Documentation of any changes in the design, operation, or maintenance of the affected sources, as required in Section 2.1 D.5.ee of this permit;
- xiii. The ESV operating plan; and,
- xiv. Description of corrective measures for any ESV opening.
[40 CFR 63.1211(b), 15A NCAC 02D .0508(f)]
- mm. For startup, shutdown, and malfunction events:
 - i. When actions taken during a startup, shutdown, or malfunction are consistent with the procedures specified in the SSMP, the Permittee shall create and retain records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other effective form of recordkeeping. In addition, the Permittee shall create and retain records of these events as specified in paragraph 40 CFR 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction, including each malfunction of the air pollution control and monitoring equipment.
 - ii. If an action during a startup, shutdown, or malfunction is not consistent with the procedures specified in the SSMP and an affected source exceeds any applicable emission limitation in the relevant emission standard, the Permittee shall record the actions taken for that event and report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR 63.10(d)(5).
[40 CFR 63.1206(c)(2)(i), 40 CFR 63.6(e)(3)(iii) and (iv)]

Notifications of Compliance [40 CFR 63.1210]

- nn. The Permittee shall submit a Notification of Compliance to the NC DAQ Regional Supervisor after each comprehensive performance test. [40 CFR 63.1210(d)(1)(i)]
 - i. The notification must be postmarked before the close of business on the 90th day following completion of the relevant test. [40 CFR 63.1210(d)(1)(ii)]
 - ii. Upon postmark of the Notification, the operating parameter limits identified in the Notification of Compliance shall replace the operating parameters in this permit. [40 CFR 63.1210(d)(1)(iii)]
 - iii. The Permittee shall also submit an application to the NC DAQ to revise the limits identified in the permit to be consistent with the most recent performance test. These operating parameters may be modified by administrative amendment.

Reporting [15A NCAC 02D .0508(f), 40 CFR 63.10, 40 CFR 63.1211]

- oo. **Immediate Startup, Shutdown, Malfunction (SSM) Reports.** Any time an action taken by the Permittee during a startup or shutdown that caused an affected boiler to exceed any applicable emission limitation, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the SSMP, report the actions taken for that event to the NC DAQ – Regional Supervisor within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report shall consist of a telephone call (or fax transmission) to the NC DAQ – Regional Supervisor within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains:
 - i. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
 - ii. An explanation of the circumstances of the event;
 - iii. An explanation of the reasons for not following the startup, shutdown, and malfunction plan;
 - iv. A description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions); and,
 - v. A description of actions taken to minimize emissions.
[40 CFR 63.1211(a), 40 CFR 63.10(d)(5)(ii)]
- pp. **Periodic Startup, Shutdown, Malfunction (SSM) Reports.** Periodic SSM reports are only required if a startup or shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The Permittee shall submit any required periodic report to NC DAQ on or before January 30 of each calendar year for the preceding 6-month period between July and December and by July 30 of each calendar year for the preceding 6-month period between January and June. The report shall include the following:
 - i. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
 - ii. Identify any actions taken during a startup, shutdown, or malfunction of an affected source are consistent with the procedures specified in the source's SSMP, including corrective actions taken during a malfunction. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions may be summarized in checklist form and if actions taken are the same for each event, only one checklist is necessary; and,

- iii. Identify the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

Periodic SSM reports may be included with the excess emissions, CMS performance, and summary reports.

[40 CFR 63.1211(a), 40 CFR 63.10(d)(5)(i)]

- qq. The Summary and CMS Performance Report and the Excessive Emissions Report. The Permittee shall submit a written semiannual periodic report to NC DAQ postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.

- i. The Summary and CMS Performance Report shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations;
- (F) The monitoring equipment manufacturers and model numbers;
- (G) The date of the latest certification or audit for each CMS;
- (H) The total operating time of the affected source during the reporting period;
- (I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
- (J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (K) A description of any changes in CMS, processes, or controls since the last reporting period;
- (L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and,
- (M) The date of the report.

- ii. The Excess Emission Report shall contain the following information:

- (A) The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
- (B) The date and time identifying each period during which each CMS was inoperative except for zero (low-level) and high-level checks;
- (C) The date and time identifying each period during which each CMS was out of control, as defined in 40 CFR 63.8(c)(7);
- (D) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances that occurs during startups, shutdowns, and malfunctions;
- (E) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances that occurs during periods other than startups, shutdowns, and malfunctions;
- (F) The nature and cause of any malfunction (if known);
- (G) The corrective action taken or preventive measures adopted;
- (H) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;
- (I) The total process operating time during the reporting period;
- (J) When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 63.1211, 40 CFR 63.10(c), 40 CFR 63.10(e)(3)]

6. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources, 40 CFR Part 63, Subpart JJJJJ

Applicability [40 CFR 63.11193, 63.11194(a), (b), 63.11200(c)]

- a. For the emission source (**ID No. BH-5**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63, Subpart JJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers." including Subpart A "General Provisions."

Definitions and Nomenclature

- b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.11237 shall apply.

General Provisions [40 CFR 63.11235]

- c. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR Part 63 Subpart JJJJJ.

Compliance Dates

- d. The Permittee shall achieve compliance with the initial tune up and energy assessment requirements no later than March 21, 2014.
 - i. The initial tune-up on this source (**ID No. BH-5**) was completed on March 14, 2012.
 - ii. The initial energy-assessment on this source (**ID No. BH-5**) was completed on March 21, 2014.[40 CFR 63.11196(a)(1), (a)(3), 63.11210(c)]

Notification of Compliance Status [40 CFR 63.11225]

- e. The Permittee shall submit a Notification of Compliance Status no later than July 19, 2014. The Notice of Compliance Status for the initial tune-up was submitted on July 27, 2012. The Notice of Compliance Status for the energy assessment was submitted on July 16, 2014.

General Compliance Requirements [40 CFR 63.11205(a)]

- f. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Performance Tune-up Requirements [15A NCAC 02Q .0508(b)]

- g. The Permittee shall conduct an initial tune-up of this source (**ID No. BH-5**) and subsequent tune-ups biennially.
 - i. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.
 - ii. The Permittee shall conduct the tune-ups while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
 - iii. The tune-ups shall be conducted according to the following procedures:
 - (A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
 - (B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - (C) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.

- (D) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (F) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

[40 CFR 63.11201(b), Table 2, 40 CFR 63.11223(a),(b)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(b)]

- h. The Permittee shall conduct a one-time energy assessment performed by a qualified energy assessor for this source (**ID No. BH-5**). This requirement was met on March 21, 2014.
[40 CFR 63.11201(b), Table 2]

Recordkeeping [15A NCAC 02Q .0508(f)]

- i. The Permittee shall maintain the following records:
 - i. As required in 40 CFR 63.10(b)(2)(xiv), the Permittee shall keep a copy of each notification and report that was submitted to comply with this rule and all documentation supporting any Notification of Compliance Status that was submitted.
 - ii. The Permittee shall keep the following records to document conformance with the performance tune-ups:
 - (A) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - (B) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (C) A description of any corrective actions taken as a part of the tune-up of the boiler.
 - (D) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
 - iii. The Permittee shall keep a copy of each boiler energy assessment report.
 - iv. Records of the occurrence and duration of each malfunction of the boiler or of the associated air pollution control and monitoring equipment.
 - v. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Section 2.1 D.6. f, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- [40 CFR 63.11225(c), 63.11223(b)(6)]
- j. The records must be in a form suitable and readily available for expeditious review. The Permittee shall keep each record for 5 years following the date of each recorded action. The Permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The Permittee may keep the records off site for the remaining 3 years.
[40 CFR 63.11225(d)]
- k. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 D.6.i and j are not met.

Reporting [15A NCAC 02Q .0508(f)]

- l. In addition to the notification and reporting requirements of the Environmental Protection Agency (EPA), the Permittee is required to notify the Regional Supervisor, NC DAQ, in writing, of the following:
 - i. A Biennial Compliance Report must be prepared by March 1 of every other year starting March 1, 2015 and submitted upon request. If the source experiences any deviations from the applicable requirements, then the report must be submitted by March 15. The report must meet the requirements of 40 CFR 63.11225(b)(1-4).

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility Wide

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
NOx	Facility-wide NOx emissions shall be less than 100 tons per consecutive 12-month period.	15A NCAC 02Q .0317 (PSD Avoidance)
SO ₂	Facility-wide SO ₂ emissions shall be less than 100 tons per consecutive 12-month period.	15A NCAC 02Q .0317 (PSD Avoidance)
TAP	<u>State-enforceable only</u> Source-specific emissions limitations for acetic acid, ammonia, aniline, arsenic, benzene, chlorine, chromate compounds, hydrogen chloride, and nitrobenzene	15A NCAC 02D .1100
TAP	<u>State-enforceable only</u> TAP <i>de minimus</i> levels	15A NCAC 02Q .0700
Odors	<u>State-enforceable only</u> Prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary	15A NCAC 02D .1806

1. 15A NCAC 02Q .0317: AVOIDANCE OF 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. To maintain minor source status under 15A NCAC 02D .0530, facility-wide emissions shall be less than the following limitations:
 - i. Total sulfur dioxide (SO₂) emissions shall not exceed 100 tons during any consecutive 12-month period; and,
 - ii. Total nitrogen oxide (NOx) emissions shall not exceed 100 tons during any consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.2 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall keep monthly records of total fuel usage in the affected combustion sources, including the wastewater plant generator, in a logbook (written or in electronic format), as follows:
 - i. The total quantity of No. 2 fuel oil or diesel fired;
 - ii. The total quantity of natural gas fired;
 - iii. The total quantity of landfill gas fired; and,
 - iv. The total quantity of aniline tar (K-083 liquid waste) fired.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the fuel usage and fuel oil sulfur content are not created and retained as required above.
- d. The Permittee shall monitor the sulfur content (S) of the diesel and No. 2 fuel oil by using fuel oil supplier certification per shipment received. The results of the diesel and fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a semiannual basis and include the following information:
 - i. The name of the fuel oil supplier;
 - ii. The maximum sulfur content of the fuel received during each six-month period (i.e., January-June and July-December);
 - iii. The method used to determine the maximum sulfur content of the fuel oil; and
 - iv. A certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 2 fuel oil or diesel fuel fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur content of the No. 2 fuel oil is not monitored and recorded.
- e. Each calendar month, the Permittee shall calculate emissions from all combustion sources for the previous month and previous 12-month period and record calculated emissions in a logbook (written or electronic format). Emissions calculations shall use the higher heating values and emissions factors listed below:

i. Higher Heating Values:

Natural Gas	No. 2 Fuel Oil	Aniline Tar	Diesel Fuel	Landfill Gas
1,000 Btu/scf	141,000 Btu/gal	14,000 Btu/lb	136,065 Btu/gal	520 Btu/scf

ii. SO₂ Emission Factors:

Emission Source ID No.	Natural Gas lbs/MMscf	No. 2 Fuel Oil* lbs/1,000 gal	Aniline Tar lbs/1,000 lbs tar	Diesel Fuel lbs/1,000 gal	Landfill Gas lbs/MMscf
BH-2	0.6	-	3.11	-	-
BH-5	0.6	142(S)	-	-	2.42
BH-6	0.6	-	-	-	2.42
BH-7	0.6	-	3.11	-	2.42
I-WW-1	-	-	-	39.7	-

* S = Sulfur content of the fuel oil in % by weight. (Example: Where sulfur content is 0.5%, S = 0.5)

iii. NO_x Emission Factors:

Emission Source ID No.	Natural Gas lbs/MMscf	No. 2 Fuel Oil lbs/1,000 gal	Aniline Tar lbs/1,000 lbs tar	Diesel Fuel lbs/1,000 gal	Landfill Gas lbs/MMscf
BH-2	105	-	10.3	-	-
BH-5	100	17.5	-	-	11.81
BH-6	100	-	-	-	11.81
BH-7	103.95	-	8.78	-	11.81
I-WW-1	-	-	-	604	-

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not retained or if one or more of the 12-month rolling emission totals are greater than the emission limits provided in Section 2.2 A.1.a of this permit.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping requirements given in Section 2.2 A.1.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- The monthly NO_x and SO₂ emissions for the previous 17 calendar months;
 - The 12-month rolling NO_x and SO₂ emissions for each 12-month period ending during the reporting period; and,
 - All instances of deviations from the requirements of this permit must be clearly identified.

STATE-ENFORCEABLE ONLY**2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

- a. Pursuant to 15A NCAC 02D .1100, "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Toxic Air Pollutant	Emission Source	Allowable Emission Rate
Acetic Acid	Packed Bed Scrubber (ID No. APAP-1)	0.292 lbs/hr
	135,000-gal storage tank (ID No. APAP-5A)	0.202 lbs/hr
	135,000-gal storage tank (ID No. APAP-5B)	0.202 lbs/hr
	Four (4) 20,000-gal storage tanks & truck/rail loadout (ID No. APAP-7)	0.618 lbs/hr
	APAP Fugitives (ID No. I-ES-Fugitives-APAP-9)	0.740 lbs/hr
	Rinse in Purified Blend Tanks and Centrifuge Feed Tank (ID No. APAP-13)	0.0154 lbs/hr
	Rinse in Purified Blend Tank (ID No. APAP-14)	0.0180 lbs/hr
	Rinse in Purified Blend Tank (ID No. APAP-15)	0.100 lbs/hr
	Wastewater Treatment Plant Fugitives (ID No. WW-3)	0.600 lbs/hr
	Acetic Acid Tank (ID No WW-4)	0.825 lbs/hr
Ammonia	Fugitives from Ammonia Tanks & Piping (ID No. ES-Fugitives-PAP-21)	4.85 lbs/hr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	0.200 lbs/hr
	APAP Liquid Ammonia Fugitive (ID No. ES-Fugitives-APAP-20)	8.49e-03 lbs/hr
Aniline	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	0.8738 lbs/hr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	1.0 lbs/hr
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.273 lbs/hr
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.137 lbs/hr
	PAP Building 205 Fugitives (ID No. ES-Fugitives-PAP-20)	0.137 lbs/hr
	Aniline Loading Truck Station (ID No. PAP-25T)	0.0536 lbs/hr
	Aniline Railcar Loading Rack (ID No. PAP-25R)	0.0536 lbs/hr
	Aniline Bulk Storage Tank (ID No. PAP-10)	0.16 lbs/hr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.0283 lbs/hr
	K-083 Liquid waste storage tank (ID No. BH-900)	31.7 lbs/hr
Arsenic (As) & Inorganic Arsenic Compounds	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.345 lbs/yr
Benzene	Hydrogenerators (ID No. PAP-1)	543 lbs/yr
	Hydrogenerators (ID No. PAP-6)	543 lbs/yr
	Railcar Unloading Fugitives (ID No. PAP-11)	4.91 lbs/yr
	Nitrobenzene Bulk Storage Tank (ID No. PAP-12)	2.85 lbs/yr
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.080 lbs/yr
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.040 lbs/yr
	PAP Building 205 Fugitives (ID No. ES-Fugitives-PAP-20)	0.040 lbs/yr
	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	0.008 lbs/yr
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	208.57 lbs/yr
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	2.016 lbs/yr
	Boiler (ID No. BH-7)	1.23 lbs/yr
Chlorine	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	1.11 lbs/day
Hydrogen Chloride	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.333 lbs/hr

Toxic Air Pollutant	Emission Source	Allowable Emission Rate
Nitrobenzene	Hydrogenerators (ID No. PAP-1)	0.457 lbs/hr 11.0 lbs/day
	Hydrogenerators (ID No. PAP-6)	0.457 lbs/hr 11.0 lbs/day
	Railcar/Truck Unloading Fugitives (ID No. PAP-11)	0.0276 lbs/hr 0.663 lbs/day
	Nitrobenzene Bulk Storage Tank (ID No. PAP-12)	0.162 lbs/hr 3.89 lbs/day
	PAP Process Line LDAR Fugitives (ID No. ES-Fugitives-PAP-18)	0.273 lbs/hr 6.55 lbs/day
	PAP Building 201 Fugitives (ID No. ES-Fugitives-PAP-19)	0.137 lbs/hr 3.28 lbs/day
	PAP Building 205 Fugitives (ID Nos. ES-Fugitives-PAP-20)	0.137 lbs/hr 3.28 lbs/day
	Cloud Chamber Scrubber Stack (ID No. CD-CCS)	0.000135 lbs/hr 0.00324 lbs/day
	PAP-I and PAP-II Stack (ID No. PAPSCRUB)	0.143 lbs/hr 3.43 lbs/day
	PAP Filter Changes (ID No. ES-Fugitives-PAP-26)	1.15 lbs/hr 3.43 lbs/day
	K-083 Liquid waste storage tank (ID No. BH-900)	1.35 lbs/hr 32.4 lbs/day

Operational Restrictions

- b. To assure compliance with the toxic air pollutant emission limits specified above, the following conditions and limitations shall apply:
- Production of acetyl-para-aminophenol (APAP) in Building 101 (**ID No. APAP-1**) shall not exceed 110 batches per day; and,
 - Burning of K-083 liquid waste (aniline tar) in boilers (**ID Nos. BH-2 and BH-7**) shall not exceed 1,814 lbs/hr combined (rolling 1-hour average).
 - Filling K-083 aniline tar into the K-083 Liquid waste storage tank (**ID No. BH-900**) shall only be allowed to occur between 7:00 AM and 7:00 PM when the K-083 Liquid waste storage tank is vented directly to the atmosphere.

Inspection Requirements

- c. The Permittee shall perform periodic inspections and maintenance of the condensers (**ID Nos. COND-2 & COND-3**) as recommended by the equipment manufacturer, or at a minimum, the Permittee shall perform an annual (for each 12-month period following the initial inspection) internal inspection of the condenser system, as follows:
- Inspect and maintain the structural integrity of the condensers, including inspection for leakage of coolant and, if the system is under positive gauge pressure, leakage of the contaminated gas stream. To indicate leakage of the coolant, the condensate shall be inspected for the presence of coolant; and,
 - Inspect and maintain the structural integrity of duct work and piping leading to and coming from the condenser.
- d. The Permittee shall perform periodic inspections and maintenance of the packed bed scrubber (**ID No. PAPSCRUB**) as recommended by the manufacturer, or at a minimum, the Permittee shall perform an annual (for each 12-month period following the initial inspection) internal inspection of the scrubber system, including an inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation.

Recordkeeping Requirements

- e. The Permittee shall record the number of batches of APAP produced each day on a monthly basis in a toxic air pollutant emissions logbook. The Permittee shall maintain strip chart recordings or electronic data of continuous tar feed to the two boilers to demonstrate compliance with the hourly feed rates limits.
- The toxic air pollutant emissions log and strip charts and/or electronic records shall be made available for inspection by personnel of the NC DAQ.
 - Maintain records of productions rates, throughputs, material usage, tar flow strip chart or electronic data, and

other process operational information as is necessary to determine compliance with the air toxic emission limits specified above for a minimum of two years from the date of recording.

- f. The results of all condenser and packed bed scrubber inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a logbook. Records of all maintenance activities shall be recorded in the logbook. The logbook (in written or electronic format) shall be kept on-site and made available to NC DAQ personnel upon request

Reporting Requirements

- g. Within 30 days following the end of each calendar year quarter, the Permittee shall submit, in writing, to the Air Quality Regional Supervisor, Division of Air Quality records of the daily APAP batches required in Section 2.2 A.2.e above.

STATE-ENFORCEABLE ONLY

3. 15A NCAC 02Q .0700: TOXIC AIR POLLUTANT EMISSION RATES REQUIRING A PERMIT

Pursuant to 15A NCAC 02Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 02Q .0711.

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100, "Control of Toxic Air Pollutants".
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Benzo(a)pyrene (Component of 83329/POMTV & 56553/7PAH) (50-32-8)	2.2			
Cadmium Metal (elemental unreacted, Component of CDC) (7440-43-9)	0.37			
Carbon disulfide (75-15-0)		3.9		
Formaldehyde (50-00-0)				0.04
Manganese & compounds (MNC)		0.63		
n-Hexane		23		
Mercury, vapor (Component of HGC) (7439-97-6)		0.013		
Methylene chloride (75-09-2)	1,600		0.39	
Nickel metal (Component of 373024/NIC) (7440-02-0)		0.13		
Polychlorinated biphenyls (PCB) (1336-36-3)	5.6			
Toluene (108-88-3)		98		14.4

STATE-ENFORCEABLE ONLY

4. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2.3 - Other Applicable Requirements

A. Facility Wide

1. 15A NCAC 02Q .0508(h): PREVENTION OF ACCIDENTAL RELEASES – SECTION 112(r) OF THE CLEAN AIR ACT

- a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in accordance with 40 CFR Part 68.

Recordkeeping/Reporting [15A NCAC 02Q .0508(g)]

- b. The Permittee shall submit an update to the Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.150 no later than **January 31, 2024**, or as specified in 40 CFR 68.10.
- c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 no later than **January 31, 2024**, and at least once every five years after that date or most recent update as required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. Circumvention - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. Permit Modifications

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. Changes Not Requiring Permit Modifications

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall

comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. Certification by Responsible Official [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. Permit Shield for Applicable Requirements [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. Termination, Modification, and Revocation of the Permit [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. Insignificant Activities [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. Property Rights [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. Inspection and Entry [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1)** – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the

application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound